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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/823,328 | 03/29/2001 | Yusuke Tsutsui | | 8119 |

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EXAMINER

LE, DINH THANH

ART UNIT PAPER NUMBER

2816

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/823,328

Applicant(s)

TSUTSUI ET AL.

Examiner

DINH T. LE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6/14/04
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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NON-FINAL REJECTION

Response to Applicant's Amendment

The objection of the specification and the rejection under 35 USC 112, second paragraph, are withdrawn in view of the amendments to the claims.

The rejection over Ito (US 5,859,632) is withdrawn in view of the amendments to the claims.

Claim Rejections

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 6, 8 and 13-14 are rejected under 35 USC 102 (e) as being anticipated by Ikeda (US 6,236,394).

Ikeda discloses in Figures 1A-1D to 34 a circuit comprising:

- a driving circuit (51-61) for generating a signal to allow a display section (62) to

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display, said driving circuit (51-61) being operated using a predetermined system clock external (CLK) to the driving apparatus (51-61);

- a charge pump type power supply circuit (50) for generating a supply voltage for a display device (62) by boosting an input voltage to a voltage n times or $-n$ times said input voltage, said power supply circuit (50) including a plurality of switches and a plurality of capacitors (Figures 3A-3D), the plurality of switches connecting a first one of the plurality of capacitors to either a second one of the plurality of capacitors or to an input voltage;

- wherein the charge pump type power supply circuit has a first capacitor (CP), a second capacitor (CB) and an output (18, 20) coupled to the second capacitor (CB); a first switch (SW12, SW22), wherein the first switch (SW12, SW22) connects a first terminal of the first capacitor (CP) to either of an input voltage (VSS) or a first terminal of the second capacitor (CB); a second switch (SW21), wherein the second switch (SW21) connects a second terminal of the first capacitor (CP) to either of a second terminal of the second capacitor (C2) or the input voltage (VSS);

- wherein the charge pump type power supply circuit (50) includes means for two boosted voltages (Figures 9A-9B); and means (70) for generating two power supply clocks to switch off the two boosted voltages at different times, whereby a power supply of a panel is switched off after a power supply for a driving circuit is switched off; and

- wherein said driving circuit (51-61), generates a power supply clock internal to the charge pump type power supply circuit (50) using said system clock (CLK), the power supply clock being provided to the plurality of switches; and said power supply circuit generates said supply voltage by switch controlling said plurality of switches based on said power supply clock.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 9-12 are rejected under 35 USC 103 (b) as being unpatentable over Ikeda (US 6,236,394) in view of Jung (US 5,847,702).

Ikeda discloses a circuit in Figures 1A-1B to 34 comprising all of the limitations of the claimed invention as discussed above but does not disclose that the means for selectively providing a power save control instruction.

Jung teaches in Figures 1-4 and 7B a circuit comprising a controller (30) for providing a power down instruction to the charge pump circuit (40) to reduce power consumption.

It would have been obvious to a person having skilled in the art at the invention was made to modify the circuit of Ikeda by employing the power saving mode taught by Jung for the purpose of reducing the power consumption

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DINH T. LE whose telephone number is (571) 272-1745. The examiner can normally be reached on Monday-Friday (8AM-7PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIMOTHY CALLAHAN can be reached at (571) 272-1740.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 9, 2004


DINH T. LE
PRIMARY EXAMINER